

Knowledge, Attitude and Practice of Iranian Women towards Breast Cancer Screening Methods

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ABSTRACT

Female breast cancer is the second leading cause of death due to cancer and the second leading cause of cancer deaths in women after lung cancer. This study aimed to investigate the knowledge, attitude and practice of women about breast cancer's screening methods in order to offer more appropriate training programs if necessary. A cross-sectional study was carried out with a population comprised of women who had referred to public health centers in Sanandaj in 2008. The results of this study do provide some understanding on the topic and suggest that although the majority of Iranian women seem to be quite knowledgeable about breast cancer and screening methods. They need more education on breast cancer, SBE and other methods of early detection. We recommend the establishment of an institutional framework and policy guidelines that will enhance adequate and urgent information dissemination about breast cancer and screening methods to all women in Iran. Since women's beliefs and behaviors may impact young women, designing training courses for this group seems to be essential.

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1. INTRODUCTION

Breast cancer is the second leading cause of cancer deaths in American women [1],[2]. It approximately represents one third of all cancers in women and is the second leading cause of cancer deaths in women after lung cancer. Currently, one out of every 7 women will develop breast cancer in her lifetime [3],[4]. The incidence of Breast cancer is increasing in Iran and of every 100,000 women in Iran, 20 suffer breast cancer. In fact, each year 6000 new cases of breast cancer is found in our country and since the disease is mostly diagnosed at advanced stages, patients often die in a short period after diagnosis [5],[6]. Risk factors for breast cancer include: increasing age, genetic factors, positive family history, early menarche and delayed menopause, first pregnancy over 30 years, high dietary fat, alcohol consumption, using hormone therapy, exposure to X-rays before age 30, treatment and radiotherapy of the chest (e.g. for treatment of Hodgkin's disease) and risk of developing other malignancies [3],[4],[7]. The time for masses to double their size varies from several weeks in rapid growing masses and from several months or years in slow-growing ones. While the tumor is still not clinically clear, cancer cells may spread in the body. The incidence of distant metastasis considerably fits the tumor size. If the patient has no metastatic disease, complete recovery is achievable only by surgery and lesion removal. If diagnosis is made at advanced stages, mortality will be very high. Therefore, early diagnosis, before the spread of cancer cells, is the base of a successful treatment and this won't be possible without proper screening methods [8]-[13]. The recognized screening methods include: breast self-examination (SBE), clinical breast examination, ultrasound and mammography. Standard methods of screening are mammography and clinical breast examination.

It seems that in Iran, women's knowledge, attitude and performance of early diagnosis of breast cancer has a poor outcome. As in a research conducted in Tehran among school teachers, only 6% of teachers did SBE regularly. Although 34% were familiar with breast self-examination, they considered it to be non-essential and 36% believed that clinical examination is not necessary. 67% believed that they were at risk for breast cancer and 59% considered positive family history of breast cancer as an important risk factor for development of the disease. 80% of these teachers claimed if the importance of SBE examination has been set, they would have practiced that [6]. Another research conducted in Tehran on 70 women, showed that most respondents had no knowledge about screening behavior and they were not aware of the diagnostic methods except SBE. They thought mammography is done after the incidence of breast cancer to examine the status of the disease. They also didn't know that early detection can be effective for proper treatment and didn't take that for granted [14].

According to what has been reported, providing appropriate information and knowledge helps women have a better attitude towards cancers with high chance of occurring while more appropriate attitude and practice may reduce their morbidity and mortality. If training is not appropriate and makes no change in women's attitude and performance, costs and time spent will be in vain.

2. MATERIAL AND METHODS

This cross - sectional study has been performed on all women referring to public health centers in Sanandaj in 2008. A sample size of 384 individuals with 95% confidence interval, frequency of 50% and accuracy of 0.05 was determined. 10 clinics in Sanandaj were randomly selected and in each center around 40 women within the inclusion criteria (women aged over 15 years) were randomly chosen using a random allocation of numbers. Finally, after reviewing the completed questionnaires, 70 were excluded due to incomplete information and 307 questionnaires were statistically analyzed.

The questionnaire designed by the researcher was examined by three faculty members of Midwifery Department at Sanandaj Islamic Azad University of Medical Sciences and its content validity was determined. A test re-test self administered questionnaire was used as a tool to determine the questionnaire's reliability (Cronbach's alpha 0.8). Also for classified questions (questions concerning the knowledge of screening methods, attitudes and the practice including seven, six and two questions, respectively) rating and scoring was done after completion, based on questions' scores (low - medium - good). Questionnaires were filled in by interviewers. Then after completion of coded questionnaires, contained information was entered in SPSS program for further statistical analysis.

Prior to interviews, study objectives were explained to all the participants and those interested in the research were interviewed. To maintain the anonymity, questionnaires were completed with no name registration and profile samples and the information was completely confidential. Necessary coordination was performed and permissions from the selected clinics were obtained.

3. RESULTS AND DISCUSSION

A total of 307 women, with the mean age of 72.29 in the range of 17 to 69 years old participated in the study. Forty one (13.4%) were single and 266 (86.6%) were married. 73.3 % were housewives and 26.7% were employed. 71.4% had a high school diploma or lower degrees. 296 (3/94%) stated that breast cancer is one of the most dreaded conditions in women and only 13 (1/4%) mentioned that it is not a top condition to be feared most. The awareness of participants about methods of early detection and treatment of breast cancer considered as knowledge is shown in Table 1. Most women (67.1%) were aware of the importance of breast cancer screening examinations by a physician or midwife for its prevention. 84.4% of women believed the time of diagnosis would affect the outcomes of treatment. participants' views and attitudes towards screening procedures and its impact on their lives and health are given in Table 2. Monthly self breast examination and annual mammography had been intended as a proper action in the questionnaire. Only 47.4% of women had practiced self breast examination but not as a monthly routine. Table 3 describes the frequency distribution practice of breast cancer by participants.

Table 1. Frequency Distribution of Women's Awareness about Breast Cancer and Detection Methods

| Detection Methods | Not Familiar | | Familiar | |
|---|--------------|--------|----------|--------|
| | Percent | Number | Percent | Number |
| Self-Examinations | 36.8 | 113 | 63.2 | 194 |
| Examination by a physician or midwife | 32.9 | 101 | 67.1 | 206 |
| Ultrasound | 68.2 | 208 | 31.8 | 97 |
| Mammography | 59.7 | 182 | 40.3 | 123 |
| The onset of breast examinations by a physician | 69.7 | 214 | 30.3 | 93 |
| The onset of breast self examination | 65.5 | 201 | 34.5 | 106 |
| The onset of mammography | 76.2 | 234 | 23.8 | 73 |

Table 2. Frequency Distribution of Women's Attitude toward Breast Cancer and Detection Methods

| Themes | Do Not Know | | No | | Yes | |
|---|-------------|--------|---------|--------|---------|--------|
| | Percent | Number | Percent | Number | Percent | Number |
| You are at risk for breast cancer | 27 | 83 | 38.4 | 118 | 34.5 | 106 |
| Diet need to prevent breast cancer | 1 | 3 | 72.3 | 222 | 26.7 | 82 |
| Methods for early diagnosis of breast cancer is difficult | 16.9 | 52 | 25.1 | 77 | 58 | 178 |
| Necessity of monthly breast self-examination | 27 | 83 | 26.7 | 82 | 46.3 | 142 |
| Diagnosis time of breast cancer affects treatment | 10.1 | 31 | 5.5 | 17 | 84.4 | 259 |
| Timely treatment results in complete recovery | 11.4 | 35 | 11.4 | 35 | 77.2 | 237 |
| Annual mammography is harmful | 36.5 | 112 | 50.2 | 154 | 13.4 | 41 |

Table 3. The Frequency Distribution Practice of Breast Cancer by Participants

| Themes | No | | Yes | |
|-------------------------------|---------|--------|---------|--------|
| | Percent | Number | Percent | Number |
| self breast examination (SBE) | 52.6 | 161 | 47.4 | 145 |
| mammography | 95.5 | 273 | 4.5 | 13 |

*the frequency of rating-related knowledge, women's attitude and performance based on related scores showed that only 15.6% had good knowledge, 13% and 0.7% had fair and good attitude and performance, respectively.

Table 4 shows the information regarding Knowledge, attitude and performance of women towards early breast cancer detection methods (screening). Table 5 provides the data regarding sources of information about breast cancer symptoms, factors and screening methods.

Table 4. Knowledge, Attitude and Performance of Women towards Early Breast Cancer Detection Methods (Screening)

| Themes | Good | | Medium | | Poor | |
|---|---------|--------|---------|--------|---------|--------|
| | Percent | Number | Percent | Number | Percent | Number |
| Awareness of breast cancer screening | 15.6 | 48 | 39.4 | 121 | 45 | 138 |
| Attitudes towards breast cancer screening methods | 13 | 40 | 31.9 | 98 | 55 | 169 |
| Practice of breast cancer screening methods | 0.7 | 2 | 45.9 | 141 | 53.4 | 164 |

There was a statistically significant relation between women's awareness of breast cancer detection methods and their job, positive family history of breast cancer, and their level of education ($p = .0001$ $\chi^2 = 41.1$ and $\chi^2 = 7.9$ $p = .019$ and $\chi^2 = 44.1$ $p = .000$) and also a statistically significant relation was observed between women's practice of breast cancer screening methods and their marital status ($\chi^2 = 10.1$ $p = .006$). A significant relationship was found between women's general Knowledge* and their marital status, job, positive family history of breast cancer and level of education.

*General Knowledge: The overall awareness of women about symptoms, detection methods and risk factors for breast cancer.

There was a weak positive correlation between the number of pregnancies and awareness of cancer symptoms ($r = .14$), a positive correlation between the number of pregnancies and awareness of risk factors for breast cancer ($r = .23$) and the number of pregnancies positively correlated with general knowledge ($r =$

.17) ($p < 0.05$). No statistically significant relation was observed between knowledge, attitude and practice of women with other demographic information.

*The major source from which most participants received their information about screening methods was reported to be Health Care System's Staff and Physicians with 53.5% and the minor one was the media with 21% (Table 3).

Table 5. The Frequency Distribution of Sources of Information about Breast Cancer Symptoms, Factors and Screening Methods

| Information Source | Percent | Number |
|----------------------------|---------|--------|
| Physician | 19.5 | 59 |
| Health care staff | 34 | 103 |
| Media | 21 | 63 |
| Others (without training) | 25.5 | 77 |
| Total† | 100 | 302 |

† 5 women did not answer this question

The majority of participants were young married housewives. Breast cancer is one of the major cancers in women whose mortality rate is directly related to the diagnosis time. Based on our findings, most women (296 –94.3%) believed that breast cancer is the most important cancer in women. Also, in another study conducted in Nigeria, 67% of women admitted it as a top condition [2]. Although all the women acknowledged the importance of breast cancer, this degree of importance had failed to establish the need for getting more information about that. Eventually, in our study it was found that women's knowledge about breast cancer (Symptoms, Risk factors, diagnostic methods) was poor in this region. In fact, they did not feel threatened or found themselves at risk, as expressed. So their attitude towards screening methods was poor and as a result improper practice was observed in such a way that more than half of them (54.6%) never practiced SBE and the rest did not practice regular monthly examinations at the right time. They did it occasionally or at least once in a month.

Our results were consistent with a similar study conducted in Tehran by Jarvandy et al. (57% of women never practiced self examination). In Jarvandy et al study it was also found that 80% of women, who were aware of the importance of screening methods, would certainly practiced self examination [6]. Also, among working nurses in a hospital in Karachi, Pakistan, only 35% had a good level of knowledge, 40% had fair knowledge and 25% had poor knowledge [15].

Another interesting point of this study was the relation between women's demographic data and their level of knowledge, attitudes and practice. As it was expected women's level of education and employment that causes them to be more present in the society had a direct relationship with their level of knowledge and attitudes about screening methods. But another interesting point in this study was that married women with more number of children and older ones had a higher level of knowledge. In fact, it seems that older married women have better knowledge, since after marriage and increasing age, they usually have more tendencies for help seeking – behavior for themselves or their children, and this tendency and more contacts with health care providers affects their knowledge and awareness. But because this level of information is not offered to them on the base of an appropriate educational program, it stops them at the same level of knowledge and will not bring about changes in their attitude and practice. Although older women had a better knowledge, their performance remained weak and as same as other women. In some other research that less presentation for clinical examination and screening was observed among older women, researchers described it as women's inability to refer to medical centers due to aging or forgetfulness [16]-[19].

Regarding our country's young population and lower knowledge and attitudes of young women in this area and lower age of developing breast cancer in Iran (the risk is a decade lower than the universal age) more appropriate education for young women should be considered and is better that training starts from high school age. Another issue in this study was the very small role of public media to increase knowledge and awareness of women. Women described health care system staff as the major source of information since the mass media did not provide them with enough information and the common Kurdish dialect in this area made it difficult for them to receive information through the national media.

4. CONCLUSION

The results of this study do provide some understanding on the topic and suggest that although the majority of Iranian women seem to be quite knowledgeable about breast cancer and screening methods. They need more education on breast cancer, SBE and other methods of early detection. At the end, it is

recommended that more appropriate educational programs for practice of breast cancer screening behaviors especially at young ages and high school should be considered. One of the best times for training is the breastfeeding period when they refer to health care centers more. Also due to the downplaying role of media it seems that local media should try to do their best to pass information in local dialect to increase the level of awareness.

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